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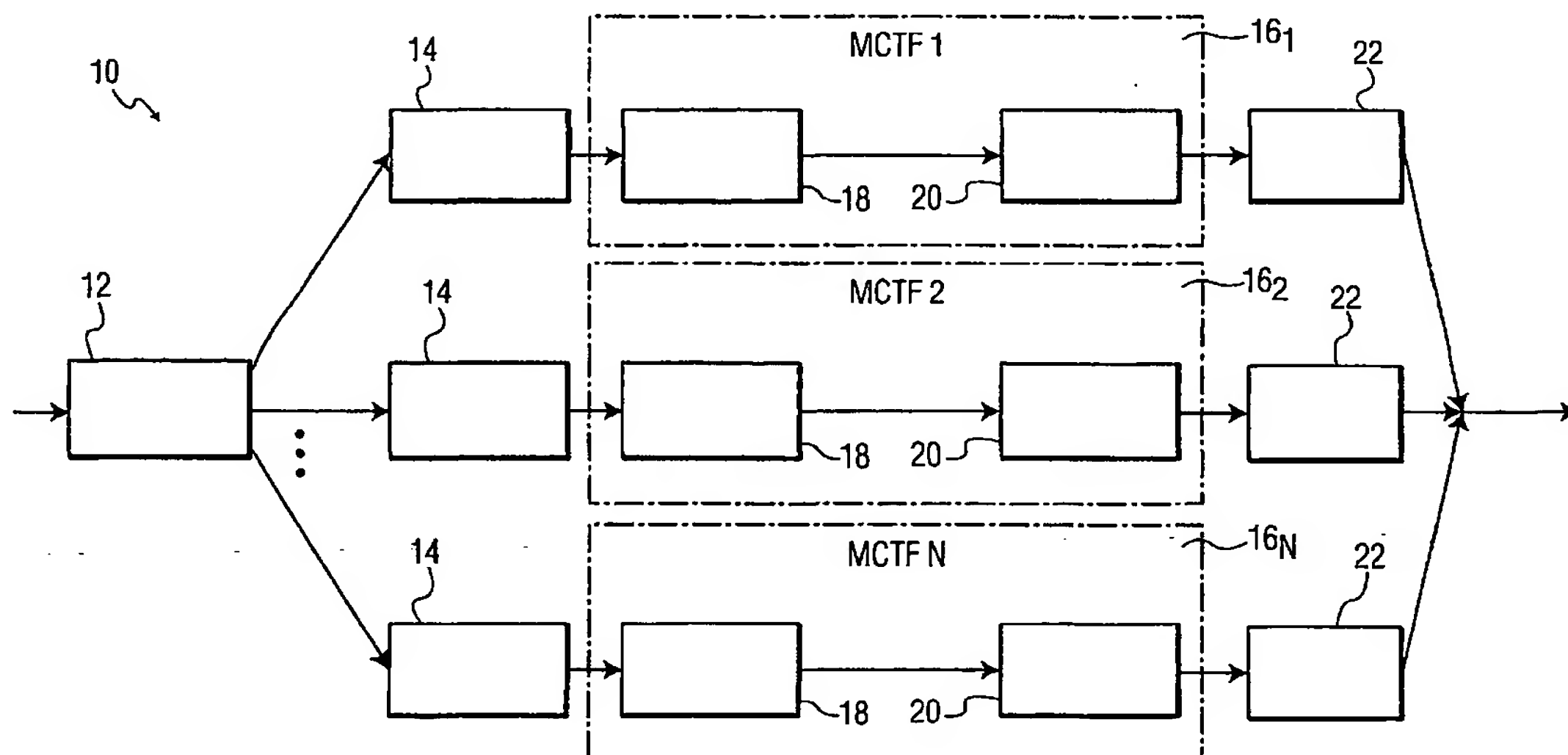
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[Continued on next page]

(54) Title: VIDEO DE -NOISING ALGORITHM USING INBAND MOTION-COMPENSATED TEMPORAL FILTERING



(57) Abstract: Method for de-noising video signals in which a wavelet transformer (12) spatially transforms each frame of a video sequence into two-dimensional bands which are subsequently decomposed in a temporal direction to form spatial-temporal sub-bands. The spatial transformation may involve the application of a low band shifting method to generate shift-invariant motion reference frames. The decomposition of the two-dimensional band, may involve the use of motion-compensated temporal filters (16), one for each two-dimensional band. Additive noise is then eliminated from each spatial-temporal sub-band, for example, using a wavelet de-noising technique such as soft-thresholding, hard-thresholding and a wavelet wiener filter.

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